2. Figure 3.23 is an activity graph for a software development project. The number corresponding to each edge of the graph indicates the number of days required to complete the activity represented by that branch. For example, it will take four days to complete the
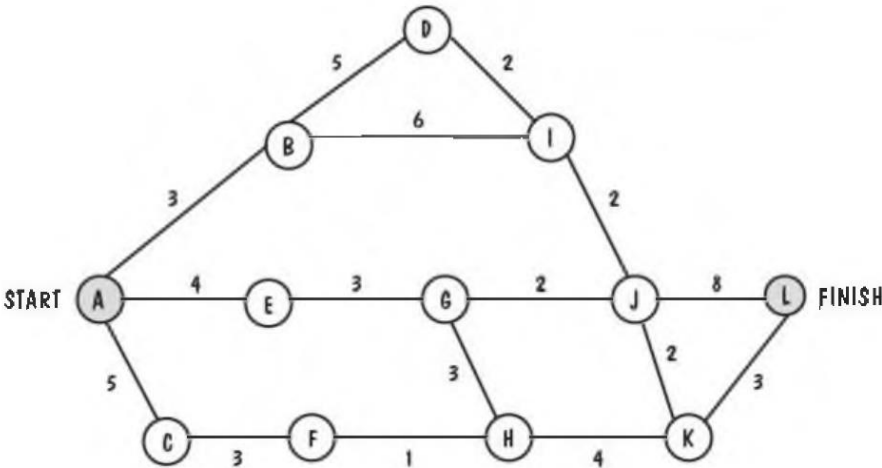
FIGURE 3.23   Activity graph for Exercise 2.

activity that ends in milestone E. For each activity, list its precursors and compute the earliest start time, the latest start time, and the slack. Then, identify the critical path.

Solution:

Activity leading to	Precursors
A	
B	A
C	A
D	A B
E	A
F	A C
G	A E
H	A C E F G
I	A B D
G	A B D E G I
K	A..J
L	A..K

Activity leading from .. to:	Earliest start time	Latest start time	Slack
A..B	1	1	0
B..D	4	4	0

B..I	4	5	1
D..I	9	9	0
I..J	11	11	0
A..C	1	5	4
C..F	6	10	4
F..H	9	13	4
A..E	1	4	3
E..G	5	8	3
G..H	8	14	6
G..J	8	11	3
H..K	10	14	4
J..K	13	16	3
J..L	13	13	0
K..L	15	18	3
L	21		

CRITICAL PATH: A..B..D..I..J..L 20DAYS

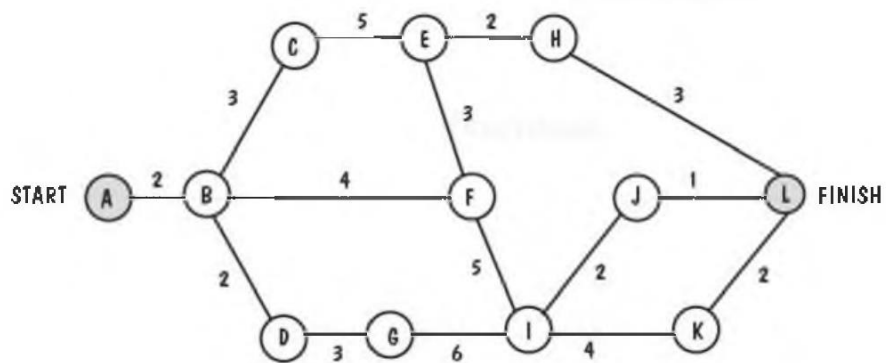3. Figure 3.24 is an activity graph. Find the critical path.

FIGURE 3.24   Activity graph for Exercise 3.

Solution：

Critical path：
A..B..C..E..D..I..K..L
24DAYS